

AS

**Notice of Allowability**

Application No.

09/443,447

Applicant(s)

CHANG ET AL.

Examiner

Art Unit

Michael La Villa

1775

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 24 November 2003.
  2. ☒ The allowed claim(s) is/are 18-23 and 25-30.
  3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
  4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
    - (a) ☐ The translation of the foreign language provisional application has been received.
  6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1 <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____</li> <li>4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>20040106</u></li> <li>7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9 <input type="checkbox"/> Other</li> </ol> |
|---|--|

*La Villa 1/6/04*

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Ackerman on 6 January 2004.
3. The application has been amended as follows:
  - I. Regarding Claim 22, please add a period at the end of the claim.
  - II. Please amend Claim 25 to read:

Claim 25. (Currently amended) The spin valve giant magnetoresistance sensor of Claim 18 wherein said free ferromagnetic layer is comprised of: CoFe, CoFe/NiFe, or Co/NiFe and has a thickness of 20 to 30 Å.
  - III. Please delete Claim 36.
  - IV. In the Abstract, at five lines from the end through the end, please delete the phrase, "In the second embodiment, a high conductivity layer (HCL) is formed over the buffer layer to create a spin filter – SVGMR. The HCL layer enhances the GMR ratio of the spin filter SVGMR. The third embodiment is a pinned FM layer comprised of a three layer structure of an lower AP layer, a spacer layer (e.g., Ru) and an upper AP layer."

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### CONCLUSION

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number (571) 272-1539. The examiner can normally be reached on Monday through Friday.
5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535.

Michael La Villa  
January 6, 2004

A handwritten signature in cursive script, appearing to read "La Villa", written in dark ink.